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Your Reference: HL74401/007/ASG/par
 Application No: GB 0310795.0

The Patent Office
 Patents Directorate

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12 June 2003

Dear Sirs

**Patents Act 1977:
 Combined Search and Examination Report under Sections 17 and 18(3)**

Latest date for reply: 21 July 2003

I enclose two copies of my search and examination report and a copy of the citations.

By the above date you should either file amendments to meet the objections in the report or make observations on them. If you do not, the application may be refused.

Publication

I estimate that, provided you have met all formal requirements, preparations for publication of your application will be completed soon after 15 July 2003. You will then receive a letter informing you of completion and telling you the publication number and date of publication.

Amendment/withdrawal

If you wish to file amended claims for inclusion with the published application, or to withdraw the application to prevent publication, you must do so before the preparations for publication are completed. No reminder will be issued. If you write to the Office less than 3 weeks before the above completion date, please mark your letter prominently: "URGENT - PUBLICATION IMMINENT".

¹Use of E-mail: Please note that e-mail should be used for correspondence only.



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You should also note that the normal, unextended period allowed for complying fully with the requirements of the Act will end on 28 August 2003. However, if you need extra time to settle any remaining objections you are entitled to extend that period by one month by filing Patents Form 52/77 and fee.

Yours faithfully

D.B. Pepper
Examiner



Application No: GB 0310795.0
 Claims searched: 1 and 2

Examiner: D.B.Pepper
 Date of search: 11 June 2003

Patents Act 1977 : Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance	
A		SU 1324722 A	(Volkov et al)
A		SU 1077803 A	(Alekseenko et al)

Categories:

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	B	Patent document published on or after, but with priority date earlier than, the filing date of this application.

Field of Search:

Search of GB, EP, WO, & US patent documents classified in the following areas of the UKC⁴:

E1F; B3J

Worldwide search of patent documents classified in the following areas of the IPC⁵:

E21B

The following online and other databases have been used in the preparation of this search report:

WPI, EPODOC, JAPIO



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Patents Act 1977

Combined Search and Examination Report under Sections 17 & 18(3)

Basis of the examination

1. My examination has taken account of the amendments filed with your agent's letter of 28 May 2003.

Allowance of the divisional date

2. Your request that this application be treated as having been filed on 23 February 2000, which is the same date of filing as your earlier application number GB 0004285.3, has been allowed.

Plurality of invention

3. Your claims define two separate inventions not forming a single inventive concept. The inventions are:

- a) the apparatus of claim 1 characterised by the lubrication assembly; and
- b) the method of claim 2 characterised by the application of a constant axial force.

This objection has been raised because the common subject matter of claims 1 and 2, i.e. means for lubricating the interface between the expansion cone and the tubular member is disclosed in SU 1324722 and SU 1077803, copies of the specifications and abstracts enclosed.

4. You will need to amend your claims, so that they relate to only one invention or inventive concept. You will also need to make consequential amendments to the description.

Clarity and consistency

5. Claim 1 is not clear because it would appear from line 1 of the claim that the apparatus is suitable for use with a tubular member whereas, from line 3 of the claim, it would appear that the tubular member forms part of the apparatus.

- 6. The references in claim 1 to "the annular member" do not have an antecedent.
- 7. Inconsistencies between claims 1 and 2, the title and the description on pages 2-



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{ Examination Report contd. }

7,10,11 and 78-88 should be removed. Also the detailed description should be amended to clearly indicate which figures lie within the scope of the invention.

Non-metric units

8. As agreed in a telephone conversation with your agent, a single equivalent metric value for each of the repeating non-metric values mentioned throughout your specification may be included at the start of the detailed description rather than alongside each of the non-metric values.

Other

9. The US patent application serial numbers should be inserted in the specification on pages 13-16,39,40,43,70 and 71.

Publication

10. Publication of this application is proceeding concurrently.

none	none	none
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PN - SU1324722 A 19870723

PD - 1987-07-23

PR - SU19864042743 19860326

OPD - 1986-03-26

TI - ARRANGEMENT FOR EXPANDING ROUND BILLETS

IN - VOLKOV YURIJ A (SU);FINOGENOV VYACHESLAV N (SU);
PASHKEVICH ANATOLIJ G (SU);OREKHOV ALEKSANDR V (SU);
GORLENKO ALEKSANDR M (SU)PA - VOLKOV YURIJ A (SU);FINOGENOV VYACHESLAV N (SU);
PASHKEVICH ANATOLIJ G (SU);OREKHOV ALEKSANDR V (SU);
GORLENKO ALEKSANDR M (SU)

IC - B21D41/02

© WPI / CERTINENT

TI - Hot expanding of tubular components - employs a ram working
inside the conical die to force out lubricant onto the contact areas
between the die and component

PR - SU19864042743 19860326

PN - SU1324722 A 19870723 DW198809 002pp

PA - (VOLK-I) VOLKOV YU A

IC - B21D41/02

IN - FINOGENOV V N; PASHKEVICH A G; VOLKOV Y U A

AB - SU1324722 A press for hot expanding of tubular components
incorporates a conical die with a system of lubricating channels and
an Induction heater interacting with an internally cooled plunger.

- The tubular component (7) is inserted over the cooled plunger (4)
and on the downstroke of the upper plate (6) spreads over the
conical surface of the die (1), pre-heated by the induction heater
coil (8) whilst simultaneously forcing graphite lubricant from the
inner chamber (B) onto the interface.

- ADVANTAGE - This extends the functional range of the press and
facilitates lubrication. Bul.27/23.7.87(1/1)

OPD - 1986-03-26

AN - 1988-062330 [09]

none	none	none
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none

none

none

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PN - SU1077803 A 19840307

PD - 1984-03-07

PR - SU19823504963 19821025

OPD - 1982-10-25

TI - APPARATUS FOR MANUFACTURING HEAT-SHRINKING TUBING

IN - ALEKSEENKO ALEKSEJ G; REKS VLADIMIR P; GABITOV KAMIL G

PA - NOVOSIB PT B VNIIPROEKTELEKTRON (SU)

EC - B29C61/08

©WPI / GERMANT

TI - Equipment for making thermosetting pipes - has expanding mandrel with cylindrical shaping part where lubricant is spread on heated pipe

PR - SU19823504963 19821025

PN - SU1077803 A 19840307 DW198443 003pp

PA - (NSVN-R) NOVOS VNIIPROEKTELE

IC - B29C17/02

IN - ALEKSEENKO A G; GABITOV K G; REKS V P

AB - SU1077803 The equipment consists of heater (11), expanding mandrel with conical inlet part, and hollow cylindrical shaping part, in the wall of which are holes for the lubrication to emerge, plus cooler (12) and mechanism for moving the pipes. Inside the hollow cylindrical part (3) is a piston (4) which is powered by the spring (6), with spring-loaded balls placed in the holes and projecting above the surface.

- USE/ADVANTAGE - In the making of plastic pipes with a means for widening out the pipes, with extended possibilities of manufacture.

- (3pp Dwg.No.1/2)

OPD - 1982-10-25

AN - 1984-268726 [43]

none

none

none

TOTAL P. 10